

**METHOD AND APPARATUS FOR ADAPTIVE TIMING
OPTIMIZATION OF AN INTEGRATED CIRCUIT
DESIGN**

ABSTRACT OF THE DISCLOSURE

An optimization apparatus and method optimizes a functional block within a netlist of an integrated circuit design. A corresponding delay value is assigned to each of a plurality of pins of the block. Each pin corresponds to a respective signal path through the block. The delay values together form a delay value combination, which is selected from a continuous set of possible combinations in which each combination in the set satisfies a predetermined criteria. A circuit configuration for the block is then generated with a plurality of logic cells that are interconnected in the netlist such that the respective signal paths have delays through the block that are based on the corresponding delay values.